

WHAT IS CLAIMED IS:

1. A semiconductor laser device in which a plurality of semiconductor lasers are juxtaposed on a semiconductor substrate,

5 the semiconductor lasers each comprising:

an active layer;

a first cladding layer and a second cladding layer arranged on both sides of the active layer; and

10 a contact layer located on the second cladding layer, wherein

part of the second cladding layer and the contact layer constitutes a ridge portion, and

the semiconductor laser device comprising:

15 a light confinement layer, which is provided in a region other than an upper surface of the ridge portion of each of the second cladding layers and has a refractive index different from that of the second cladding layers; and

20 a dielectric film provided on the light confinement layer.

2. The semiconductor laser device as claimed in claim 1, wherein

the dielectric film functions as a current constriction layer that flows no current in portions other than the ridge portion.

5 3. The semiconductor laser device as claimed in claim
2, wherein

the dielectric film is an insulation film.

10 4. The semiconductor laser device as claimed in claim
1, wherein

the dielectric film has a film thickness of not greater than 0.5 μm .

15 5. The semiconductor laser device as claimed in claim
1, wherein

the light confinement layer has a conductive type opposite to that of the second cladding layer.

20 6. The semiconductor laser device as claimed in claim
1, wherein

the light confinement layer is a high-resistance layer having a resistance value of not smaller than $1 \times 10^2 \Omega\cdot\text{cm}$.

7. The semiconductor laser device as claimed in claim 1, wherein

the light confinement layer functions as a loss guide that absorbs light from the active layer and confines
5 light in the second cladding layer.

8. The semiconductor laser device as claimed in claim 1, wherein

the light confinement layer has a film thickness
10 of not greater than 2 μm .

9. A method for manufacturing the semiconductor laser device claimed in claim 1, comprising the step of:

growing the dielectric layer on side surfaces of
15 the ridge portion and on back surfaces of sidewise protrusions of the ridge portion by a chemical vapor deposition method.